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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,723	05/20/2004	Steven Yue	370.8068USU	7438

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EXAMINER

WILLIAMS, KENNETH C

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/849,723

Applicant(s)

YUE, STEVEN

Examiner

Kenneth C. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/849723, filed on May 20, 2004.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 7, 8 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Hyatt (U.S. Patent No. 6329644) in view of Baldwin et al. (U.S. Patent No. 5892202).

a. In regards to Claim 1, Hyatt discloses a heating pad comprising "an envelope (See Hyatt Figure 1, element 12), "a phase change material" (See Hyatt Figure 2, element 20; see also column 3, lines 23-28), and "a

pair of electrodes connected to a heating element" (See Hyatt Figure 2, elements 24, 26 and 28; see also column 3, line 55 – column 6, line 4).

Hyatt does not disclose "a heating unit including a metal plate, and a resistance heating element attached to said metal plate". Attention is directed to the Baldwin et al. reference, which in an analogous field of endeavor discloses a heating coil subassembly comprising a heating coil sandwiched between two metal foils sealed with metallic tape (See Baldwin et al. column 3, lines 45-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Hyatt with the teaching of Baldwin et al. to aid in uniformly heating the phase change material.

Hyatt also does not disclose "a positioning unit mounted within said receiving space and connected to said metal plate". Attention is directed to the Baldwin et al. reference, which in analogous field of endeavor discloses the use of aluminum tape to secure and position the subassembly to the base of the thermal storage device (See Baldwin et al. column 3, lines 52-53). It would have been obvious one of ordinary skill in the art at the time of the invention to modify the device of Hyatt with the teaching of Baldwin et al. to securely maintain the position of the heating unit within the envelope.

b. In regards to Claim 7, Hyatt in view of Baldwin et al. discloses a heating pad (See Claim 1 Rejection). Hyatt further discloses, "said resistance heating element is a printed resistance wire provided on a

surface of said metal plate” (See Hyatt Figure 6; see also column 3, lines 4-15). It is the Examiner’s position that “printed resistance wire” is a method of making and in an apparatus claim carries no patentable weight. Therefore, Hyatt discloses an equivalent structure to accomplish the intended function.

c. In regards to Claim 8, Hyatt in view of Baldwin et al. discloses a heating pad (See Claim 1 Rejection). Hyatt further discloses, “a thermal control switch connected electrically to said heating unit” (See Hyatt Figure 6, element 30; see also column 3, lines 11-13).

d. In regards to Claim 10, Hyatt in view of Baldwin et al. discloses a heating pad (See Claim 1 Rejection). Hyatt further discloses “a connector connected to said electrodes externally of said envelope” (See Hyatt Figures 7 and 8; see also column 3, line 55 – column 4, line 4).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hyatt (U.S. Patent No. 6329644) in view of Baldwin et al. (U.S. Patent No. 5892202) as applied to claim 1 above, and further in view of Anderson (U.S. Patent No. 5150707).

In regards to Claim 6, Hyatt in view of Baldwin et al. discloses a heating pad (See Claim 1 Rejection). Hyatt in view of Baldwin et al. does not disclose, “said envelope is made of a plastic material”. Attention is directed to the Anderson reference, which in an analogous field of endeavor discloses a plastic resealable package which contains a thermal pack (See Anderson column 3, lines 9-27). It would have been obvious to one of ordinary skill in the art at the

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time of the invention to modify the device of Hyatt in view of Baldwin et al. with the teaching of Anderson to provide a moisture-proof covering for the heating pad.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hyatt (U.S. Patent No. 6329644) in view of Baldwin et al. (U.S. Patent No. 5892202) as applied to claim 1 above, and further in view of Bostic et al. (U.S. Patent Application Publication No. 20020092838).

In regards to Claim 9, Hyatt in view of Baldwin et al. discloses a heating pad (See Claim 1 Rejection). Hyatt in view of Baldwin et al. does not disclose "a light emitting diode connected electrically to said heating unit". Attention is directed to the Bostic et al. reference, which in analogous field of endeavor discloses light emitting diodes used to signal temperature settings (See Bostic et al. Paragraphs 0036 and 0069). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Hyatt in view of Baldwin et al. with the teaching of Bostic et al. to provide a visual indicator of temperature settings for a heating pad.

#### ***Allowable Subject Matter***

7. Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth C. Williams whose telephone

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number is (571) 272-8161. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCW



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